



MEMORANDUM

To: EPA
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From: J. Lambert, J. Brunelle
Subject: Olin Review: Supplemental Characterization of Soil Within the Containment Area v3
Date: 8/6/19

Nobis Group® (Nobis) on behalf of the U.S. Environmental Protection Agency (EPA), has reviewed and generated the following comments on the technical memorandum “Supplemental Characterization of Soil Within the Containment Area” prepared by Wood Environment & Infrastructure (Wood) on behalf of the Olin Corporation (Olin) for the Olin Chemical Superfund Site (Site) in Wilmington, Massachusetts (Wood, 2019). Comments below provide review of this technical memorandum.

1.0 COMMENTS

The soil boring program outlined in Wood, 2019x includes collecting soil samples from 8 borings advanced to a total depth of 10 feet below ground surface (bgs) or to the water table, whichever is shallower. Olin proposes to collect samples in 2-foot intervals, for an estimated total of 40 samples. Olin proposes to analyze samples for Olin’s comprehensive analytical list and for RCRA soil characterization (TLP metals, corrosivity, ignitability, reactivity).

Nobis has the following concerns with the boring program as outlined:

Spatial Coverage:

EPA has identified additional locations requiring evaluation, increasing the boring count from 8 to 12, as follows.

1. Olin should add one boring in the area where the former Drum Area B overlaps with Lined Lagoon I to investigate the waste and backfill contained in Drum Area B (as described in Wood, 2019) and confirm BEHP concentrations in this area (as identified in borings DB-C13 and DB-C15).
2. Olin should add one boring to the area of the northeastern former Acid Pit since soil samples have not been previously collected in this area.



3. Olin should add one boring at the southwest corner of the former Lined Lagoon I and one boring in the area between Lined Lagoon I, Lined Lagoon II, and the southeastern area of elevated chromium detections to provide additional lateral coverage in the center of the Containment Area.
4. Olin should move the boring in the southeast corner of the Containment Area to the southwest to capture an area of higher concentrations of organic contaminants such as BEHP and NDPA as shown in the OU1/OU2 RI, Appendix J (Amec, 2015).

See Figure 1 for additional proposed boring locations.

Depth:

As described in Section 5 of Nobis' technical memorandum to evaluate Containment Area soil (Nobis, 2019), the historical maximum soil sample depth in the Containment Area was less than 10.5 feet bgs. These samples were collected from the northwest corner of the Containment Area.

Olin should extend the 12 proposed soil borings to refusal and continuously log soil conditions. Olin should collect 5 to 10 soil samples from each boring for laboratory analysis, including 1 from the bottom 2 feet of the boring and 1 between 10 feet bgs and the bottom sample. Olin shall sample boring intervals with the strongest field indication of contamination (color, odor, texture, etc.) and in concurrence with EPA and/or its contractor (EPA field oversight is required).

Samples will confirm the depth of previous fill and excavation, vertically profile the contaminated zone, support an evaluation of the potential for soil leaching in the Containment Area, evaluate the extent of potential aquifer clogging in the DAPL pool, and better delineate the top of bedrock topography.

Other Comments:

1. Olin should describe the drilling method for the proposed work. Nobis recommends sonic drilling to minimize the chance of shallow refusal since boulders were added to the Containment Area.
2. Please confirm that formaldehyde will be included in the list of specialty compounds for analysis. Both formaldehyde and hydrazine were detected in Containment Area soils in the OU1/OU2 RI (Amec, 2015).
3. Please confirm that hexavalent chromium samples will be included as part of the "metals" analysis, as chromium has been detected in Containment Area soils as described in Wood, 2019.
4. Please confirm that boring logs will be included in the technical memorandum summarizing this work.



2.0 REFERENCES

Amec, 2015. Final Remedial Investigation Report, Operable Unit 1 & Operable Unit 2, Olin Chemical Superfund Site, Wilmington, Massachusetts. July 24.

Nobis, 2019. Technical Memorandum - Olin: Containment Area Soil Evaluation. July 22.

Wood, 2019. Supplemental Characterization of Soil Within the Containment Area. July 25.

Figure 1: Revised Boring Locations

● = Proposed additional soil boring locations

